



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/695,486 | 10/29/2003 | Yuji Yasui | 60626.00009 | 5215 |
| 32294 | 7590 | 08/11/2005 | EXAMINER | |
| SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182 | | | HOANG, JOHNNY H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3747 | |

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TAN

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/695,486 | YASUI ET AL. | |
| | Examiner | Art Unit | |
| | Johnny H. Hoang | 3747 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 July 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) 19, 20 and 30 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-18, 21-29 and 31-39 is/are rejected.

7) Claim(s) 23, 24 and 39 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/29/03.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicants provisionally elected without traverse of Group 1, including claims 1-18, 21-29, and 31-39, in the action filed on June 23, 2005 is acknowledged and placed in the file. Accordingly, the non-elected claims 19, 20, and 30 have not been examined on its merit.

Inventorship

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Objections

3. Claims 23, 24, and 39 are objected to because of the following informalities:

Claim 23, line 1, "a computer-readable medium according to claim 1 or 22" should be -- a computer-readable medium according to claim 21 or 22--.

Claim 24 is depended on claim 22.

Claim 39, line 1, "An apparatus for predicting intake manifold pressure according to claim 28" should be -- An apparatus for predicting intake manifold pressure according to claim 38--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18, 21-29, and 31-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with double recitations, terms that lack antecedent basis, and unclear language too numerous to mention in every instance. The following are several examples:

Claims 2, and 11, line 2, "a difference of values of intake manifold pressure" is double recitation.

Claims 2, and 11, lines 3, and 4, "a difference of values of throttle opening" is double recitation.

Claim 2, line 6, "the two kinds of classifications" lacks antecedent basis.

Claim 3, line 4, "a predicted difference" is double recitation.

Claim 3, line 5, "a difference of values of intake manifold pressure" is double recitation.

Claims 3, and 12, lines 6, "a second order a difference of values of intake manifold pressure" is double recitation.

Claims 4, and 13, "a second order a difference of values of intake manifold pressure" is double recitation.

Claims 4, and 13, line 5, "a difference of values of intake manifold pressure" is double recitation.

Claims 4, and 13, line 6; "a difference of values of throttle opening" is double recitation.

Claims 5, 14, and 25, line 3, "a throttle opening value" is double recitation.

Claims 6, 15, and 26, lines 2, and 5, "a throttle opening value" is double recitation.

Claim 8, line 3, "a predicted difference" is double recitation.

Claim 21, line 7, "a difference of values of intake manifold pressure" is double recitation.

Claim 21, line 8, "a difference of values of throttle opening" is double recitation.

Claim 22, line 1, "a difference of values of intake manifold pressure" is double recitation.

Claim 22, line 3, "a difference of values of throttle opening" is double recitation.

Claim 23, line 4, "a difference of values of intake manifold pressure" is double recitation.

Claim 23, line 5, "a difference of values of throttle opening" is double recitation.

Claim 22, line 6, "a second order a difference of values of intake manifold pressure" is double recitation.

Claim 24, lines 2, and 6, "a second order a difference of values of intake manifold pressure" is double recitation.

Claims 31-36, as above rejection.

The claims not specifically mentioned are indefinite since they depended from one of the above claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 5, 6, 10, 14, 15, 21, 25, 26, 31, 35, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et al (US 6,092,017).

Regarding claim 1, the reference of Ishida et al discloses the parameter estimation apparatus including the following subject matters:

the physical parameters which are detected here are the engine RPM, the intake air pressure, the present throttle amount which include a difference of values of intake manifold pressure and a difference of values of throttle opening (col. 9, lines 39-60);

obtaining a predicted difference of values of intake manifold pressure, through an algorithm of estimation with fuzzy reasoning, including fuzzy rules determined based on an amount of a difference of values of intake manifold pressure and an amount of a difference of values of throttle opening (col.14, line 25 through col. 15, line 56); and

adding the predicted difference of values of intake manifold pressure, to a value of intake manifold pressure, to obtain a predicted value of intake manifold pressure (col. 10, lines 2-54).

Regarding claims 5, and 6, as discussed in claim 1.

Regarding claims 10, 14, and 15, as the same rejection of claims 1, 5, and 6.

Regarding claims 21, 25, 26, 31, 35, and 36, as discussed above, the reference of Ishida et al further teaches the engine control unit C that include the estimation data storage unit 15.

Allowable Subject Matter

8. Claims 2-4, 7-9, 11-13, 16-18, 22-24, 27-29, 32-34, and 37-39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamaguchi (US 6,405,122 B1).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (571) 272-4843. The examiner can normally be reached on Monday - Thursday (7:00Am-5:30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH
July 28, 2005

Johnny H. Hoang
Examiner
Art Unit 3747

Tony M. Argenbright
Tony M. Argenbright
Primary Examiner
Art Unit 3747